Claims:

1. Method for the manufacture of a recombinant DNA encoding for a polypeptide synthetase (PPS) activation domain with N-methyltransferase activity, wherein a first DNA fragment encoding for a domain with N-methyltransferase activity is cloned into a second DNA fragment encoding for a PPS activation domain without N-methyltransferase activity, and wherein the first and the second DNA fragment form a continuous reading frame.

2. Method for the manufacture of a recombinant DNA encoding for a PPS with N-methyltransferase activity, wherein the first DNA fragment according to claim 1 is cloned into a second DNA fragment encoding for a PPS with an activation domain without N-methyltransferase activity at the DNA region encoding for the activation domain without N-methyltransferase activity, and wherein both DNA fragments form a continuous reading frame.

3. Method for the manufacture of a recombinant DNA encoding for a PPS with N-methyltransferase activity, wherein a DNA fragment of a PPS gene encoding for an activation domain without N-methyltransferase activity is replaced by the recombinant DNA obtained according to claim 1 or by a DNA fragment, which is encoding for a natural activation domain with N-methyltransferase activity, and wherein a continuous reading frame is obtained.

4. Method according to any of claims 1-3, wherein the DNA fragment encoding for a domain with N-methyltransferase activity is cloned between the DNA regions encoding for the adenylation domain and for the ACP-domain of the PPS

activation domain without N-methyltransferase activity by means of a single fusion site.

5. Method according to any of claims 1-3, wherein the DNA fragment encoding for a domain with N-methyltransferase activity is cloned by means of two fusion sites.

6. Method according to any of claims 4 or 5, wherein the DNA fragment encoding for a domain with N-methyltransferase activity is additionally encoding for an ACP domain, an activation domain or a condensation domain.

7. DNA, obtainable according to the method of any of claims 1-6.

8. Cell, containing at least one DNA according to claim 7.

9. Method for the manufacture of a PPS with N-methyltransferase activity, wherein the DNA obtained according to the method of any of claims 2-6 encoding for a PPS with N-methyltransferase activity is expressed.

10. Method according to claim 9, wherein the PPS is encoded on a plasmid and the expression is carried out in a microorganism.

11. PPS with N-methyltransferase activity, obtainable according to the method of any of claims 9-10.

12. Use of the PPS according to claim 11 for the catalytic influence on an educt compound or a mixture thereof.

13. Product compound, obtainable by the catalytic influence of the PPS according to the use of claim 12 on an educt compound or a mixture thereof.

14. Use of the product compound according to claim 13, to test for its pharmacological effectiveness.

15. Use of the DNA according to claim 7 for the manufacture of recombinant PKS genes or recombinant gene segments thereof.